

School Belongingness in Academically At-Risk Adolescents: Addressing Psychosocial Functioning and Psychological Well-Being

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Abstract

The fundamental psychological need for belongingness in the school setting is a crucial determinant of students' school-based and overall functioning in life. This study aims to examine the effects of school belongingness on resilience (academic resilience and buoyancy), social support, psychological well-being, and distress in academically at-risk adolescents. The study participants comprised 257 academically at-risk adolescents attending a public secondary and high school in a city in Turkey. Students were 42% ($n = 109$) female and 58% ($n = 148$), ranging in age between 11 and 18 years ($M = 13.825$, $SD = 1.673$). Results revealed that a school-based sense of inclusion was significantly and positively related to academic resilience, academic buoyancy, social functioning, and psychological well-being, but negatively to psychological and emotional distress. The findings also highlighted the crucial role of school belonging for academically high-risk adolescent groups' mental health and well-being. All findings were discussed under the related literature and suggestions were made for future research and practices.

Keywords: School belonging, resilience, well-being, distress, academically at-risk adolescents, positive psychology

Belonging is a fundamental human need (Maslow, 1943) and related to significant affiliations between people and their surroundings, such as school (Hagerty et al., 2002). Specifically, school belongingness is defined as “the extent to which students feel personally accepted, respected, included, and supported by others in the school social environment” (Goodenow & Grady 1993, p. 80). School provides unique experiences to promote youth cognitive, emotional, and social development. Within this scope, a sense of connectedness in a school's socio-ecological climate, called school connectedness, is crucial for the healthy development of youth in the school setting (Allen et al., 2016).

Previous studies have supported that school belongingness is a significant variable associated with many academic, social, and emotional outcomes in the school setting (e.g., Arslan, 2016). Various empirical findings have revealed that a low level of school belongingness is a predictor of emotional distress (Arslan, 2018a), depression, anxiety, and suicidal thoughts (Arslan & Renshaw, 2018; Ross et al., 2010; Shochet et al., 2011), decreased psychological well-being (Arslan & Allen, 2021), and other mental illnesses and problems (see for a review, Allen et al., 2018). On the other hand, an increased sense of affiliation with school brings about academic motivation and achievement (Phan, 2013), increased life satisfaction (Arslan & Duru, 2017), more prosocial behavior (Shah et al., 2021), protective-stabilizing effect on mental health problems (Pierre et al., 2020; Shah et al., 2021), enhanced psychological well-being (Arslan, 2021a) and so on.

Considering that school is at the center of students' lives, and they need to feel related to school (feeling valued and included by others in school; Osterman, 2000), exploring the antecedents and consequences of this concept becomes pertinent. However, limited research has addressed the psychological outcomes of school belongingness on adolescents' health and development, especially in the Turkish context (Arslan, 2021a). To this end, current

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research specifically aimed to test the impact of school belongingness on social functioning, resilience, psychological and emotional well-being, and distress of academically at-risk adolescents.

School Belongingness, Social Functioning, and Psychological Well-Being

Psychological well-being consists of both affective and adaptive types of well-being (Renshaw & Bolognino, 2016), and means feeling good and having effective psychological functioning (Ryan & Deci, 2001). Numerous studies highlighted the importance of having positive psychological well-being for its cognitive, physiological, and social benefits (for a review, see Huppert, 2009). Positive and meaningful social relations and/or perceived social support is one of the main determinants of psychological well-being and health (Arslan, 2018b; Burns & Machin, 2013; Holliman et al., 2021). Social support is the quality and functionality of one's social network (caring, help, trust, love, and assurance from others) (Cohen, 2004). Perceived social support increases psychological and emotional well-being (Arslan 2018b; Chu et al., 2010; Dempsey & Burke, 2021), and protects against the negative effects of social exclusion on well-being (Arslan, 2018; Arslan, 2021a), but social isolation exacerbates psychological distress and mental health problems (Menec et al., 2020; Zhang et al., 2018). In other words, receiving social support from meaningful social relations is closely linked to positive psychological well-being. To this end, some research has studied how thwarted belongingness through lack of social support negatively affects the human psyche (Hill et al., 2017; Van Orden et al., 2010). However, investigating the role of social support in psychological well-being in the school setting is also important since schools are the main parts of youths' lives. Moreover, it is noteworthy that a student might receive social support from other stakeholders other than the school like family, so it would be beneficial to examine the school-based belonging with overall social support (friends, teachers, and family).

In consonance with the need-to-belong theory (Baumeister & Leary, 1995), the psychological need for belongingness is itself a necessity for initiating and sustaining positive social relations, and in return, it also becomes a basic element for mental health and well-being (Arslan & Duru, 2017; Arslan & Coşkun, 2021; Baumeister, 2012). In other words, social exclusion sabotages social functioning and isolates individuals from receiving social support., limited research exists about the impact of school belonging on mental health and well-being indicators (Arslan, 2021a). Sparse research has indicated how it influenced mental health and well-being (Arslan, 2021b; Allen et al., 2017). In that sense, school-based belongingness is expected to be related to the quality of social relations, psychological well-being, and distress of adolescents in return. Indeed, the thwarted need for belongingness, particularly the school-based one in this example, is a lack of social connectedness, and several scholars have studied the thwarted belongingness through lack of social support (Hill et al., 2017; Van Orden et al., 2010). Overall, the current paper has suggested that school belongingness is closely related to social functioning (social support from friends, teachers, and family) since social support itself is associated with a sense of belongingness. School belongingness and meaningful social support from various stakeholders of academically at-risk adolescents are also expected to be related to increased psychological well-being.

School Belongingness, Academic Resilience, and Academic Buoyancy

Resilience is the capacity to deal with challenging stressors, and it is a strength-based psychological mechanism in face of negative circumstances (Bonanno et al., 2011). It enables positive adaptation to adverse situations and helps to reach positive youth development and accomplishments in life (Sanders et al., 2015). Early empirical findings have shown that resilience serves as a protective factor against depression (Poole et al., 2017), effects of psychological maltreatment and emotional problems (Arslan, 2016) while it contributes to physical and mental health and well-being (Arslan, 2021c; Nath & Pradhan, 2012; Yıldırım & Arslan, 2020).

Considering the mentioned benefits and protective role of resilience, discovering what contributes to resilience is crucial for both research and practice in the field. Especially the social support and meaningful interactions in high-quality social relations have been known to be the strong predictor of resilience (DuMont et al., 2007; Gooding et al., 2012; Killgore et al., 2020; Leontopoulou, 2010). Since school belongingness also involves school-based social inclusion and relationships with other school stakeholders, it might be closely related to resilience, as well. For instance, social exclusion was found to be a negative predictor of adolescents' resilience (Arslan, 2019), and similar findings were reported in other studies as well (Arslan, 2015; Waldeck et al., 2015). In the school setting, Kapoor and Tomar (2016) also revealed that the psychological sense of school membership of high school students was positively associated with their psychological resilience and self-efficacy levels.

To the best knowledge, empirical studies on the impact of school belongingness on resilience are scarce. More precisely, in the current research, this effect of school belongingness was examined on both academic buoyancy and academic resilience of young individuals. These are the different but related subdimensions of resilience in which academic buoyancy refers to the capacity to overcome minor academic adversities (e.g., exam anxiety), but academic resilience is about the capacity to cope with major academic adversities (e.g., self-handicapping) (Martin, 2013). This distinction in the concept of resilience has been newly addressed in the related literature (Martin, 2013). Academic buoyancy involves poor performance and decreased self-esteem in response to minor challenges while academic resilience is associated with chronic failures and alienation from school in face of major problems (Martin & Marsh, 2009). Thus, the present study is the first in touching upon the interaction between school belongingness and various types of school-based resilience.

Present Study

The literature sketched above implies that school-based inclusion or exclusion might play a key role in psychological well-being (Arslan, 2021a; Osterman, 2000), psychological distress, and health problems (Pierre et al., 2020; Shah et al., 2021); closely related to social relations and support (Arslan, 2018; Arslan & Duru, 2017; Arslan & Coşkun, 2021); and might be hand in hand with resilience (Arslan, 2019; Gautam & Nagle, 2016; Kapoor & Tomar, 2016). Considering these associations, a critical step is to investigate factors (i.e., school belongingness and social support) that may help to develop prevention and intervention strategies to come up with healthy development and better well-being for academically at-risk adolescents. The purpose of the current study is to provide a better understanding of the consequences of school belongingness on academically at-risk adolescents' psychological and social functioning by investigating the relation of school belongingness with psychological well-being, resilience, and social support in the school setting.

As mentioned earlier above, belongingness itself is a basic psychological need for the physical and mental health of human beings (Baumeister, 2012). Since school is the main schema of adolescents' lives, capturing how their sense of belonging to the school climate affects their psychological health and development is significant. In particular, countless efforts have been made to help academically at-risk students, and the need for a better understanding of psychological mechanisms to promote improvement for them is still continuous (Capstick et al., 2019; Larose et al., 2020; Sriram, 2014). Therefore, it is thought that researchers and practitioners in the field may have a better understanding of recognizing the needs of young adults with academic risk and developing intervention programs to improve their healthy development and functioning.

Method

Participants

Participants of the study comprised 257 academically at-risk adolescents attending a public secondary and high school in a city in Turkey. Students were 42% ($n = 109$) female and 58% ($n = 148$), ranging in age between 11 and 18 years ($M = 13.825$, $SD = 1.673$). Socioeconomic statuses (SES) of the participants were reported as follows: Low SES = 20.9%, Average SES = 51.2%, and High SES = 27.9%. Moreover, most of the adolescents reported their parents' education level (EL) as secondary school (father = 60.2% and mother = 76.5%). After informing about the purpose of the study and study measures, a paper-pencil survey that was combined using data collection measures and demographic variable items was administrated to adolescents who volunteered to participate in the study. Moreover, the sample of the study was determined based on having experienced at least one form of major academic adversity in the past academic year using the Academic Risk and Resilience Scale (ARRS). Given the definition of resilience, adolescents who have experienced academic adversity responded to the resilience items, and other students were excluded from the study.

Measures

School Belongingness Scale (SBS). The SBS is a 10-item self-report instrument developed to measure the sense of school belonging in Turkish adolescents (e.g., "I feel that I do not belong to this school", "I feel that I am accepted by other people at school", "I have close/sincere relationships with my teachers and friends") and consists of two sub-dimensions: acceptance and exclusion. All items are scored using a 4-point Likert-type scale, ranging from 1 (*almost never*) to 4 (*almost always*), and after reversing negative items, total scores denote the overall school belongingness. Previous research indicated that the scale had adequate internal reliability estimates and convergent

validity with a few well-being indicators (Arslan and Duru, 2016). Descriptive statistics and internal reliability of the scale with this sample are presented in Table 1.

Positive and Negative Experience Scale (PNES). The PNES is a 12-item self-report measure developed to assess positive feelings (6 items; e.g., “Positive”, “Good”) and negative feelings (6 items; e.g., “Unpleasant”, “Sad”), and all items are responded to using 5 points Likert-type scale, ranging from 1 “*very rarely or never*” to 5 “*very rarely or never*” (Diener et al., 2009). Telef (2013) adapted the scale for Turkish adolescents, indicating adequate internal reliability estimates and convergent validity with criterion variables. Descriptive statistics and internal reliability of the scales with this sample are presented in Table 1.

Psychological Well-being and Distress Scale (PWDS). The PWDS was used to measure psychological well-being and distress in adolescents. The PWDS is a 10-item self-report behavior rating scale designed to measure two dimensions of bidimensional mental health: psychological well-being (PW) and psychological distress (PD; e.g. “Have you got on well at school?”, “Feeling low”), All items are rated using a 5-point Likert-type scale, ranging from 1 to 5 (Response format of first seven items: 1 = *never* to 5 = *always* and other three items: 1 = *rarely or never* to 5 = *about every day*; Renshaw & Bolognino, 2016). Previous research investigating the psychometric properties of the Turkish version of the PWDS showed that the scale had internal reliability estimates (PW $\alpha = .86$ and PD $\alpha = .83$) and predictive validity with criterion variables (Arslan & Renshaw, 2019). Descriptive statistics and internal reliability (α) of the scales with the current sample are presented in Table 1.

Academic Buoyancy Scale (ABS). The ABS is a 4-item self-report measure developed to assess academic buoyancy against academic stressful events (e.g., “I don't let study stress get on top of me”, “I think I'm good at dealing with schoolwork pressures”) and all items are rated using a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*; Martin & Marsh, 2008). Psychometric properties of the ABS were investigated in the present study, and findings from these analyses are presented in the preliminary analyses.

Academic Resilience Scale (ARS). Adolescents' academic resilience was measured using the ARS, a part of ARRS, that is a 4-point self-report survey developed to assess academic resilience in the face of academic adversities (e.g., “I think I'm good at dealing with these types of pressures”, “I'm good at dealing with these types of setbacks”). First, adolescents responded to a series of academic adversity items (e.g. “Repeated a grade”, “Major illness (physical or mental) affecting schoolwork”; Response format: *yes* = 1 and *no* = 0). Following, participants scored the ARS using a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*; Martin, 2013). Psychometric properties of the scale were investigated to use the ARS in the present study, and findings from these analyses are presented in the preliminary analyses.

Social Support Scale (SSS). The SSS, a dimension of the Social and Emotional Health Survey (SEHS; Furlong et al., 2014), was used to measure youths' family, friends, and school support, and each of these subscales consists of three items (e.g. “My family members really help and support one another”, “At my school, there is a teacher or some other adult who always wants me to do my best”) that are scored using 4 point Likert-type scale from *not at all true of me* (1) to *very much true of me* (4). Prior research indicated reliability and validity evidence supporting its use with the Turkish population (Telef and Furlong, 2015). Descriptive statistics and internal reliability of the scales with this sample are presented in Table 1.

Table 1. Descriptive statistic results

| Variables | Mean | Std. Deviation | Skewness | Kurtosis | α |
|--------------------------|--------|----------------|----------|----------|----------|
| School support | 8.947 | 2.610 | -.511 | -.866 | .77 |
| Family support | 10.332 | 2.005 | -1.235 | .857 | .77 |
| Peer support | 10.128 | 2.202 | -1.045 | .241 | .79 |
| Academic resilience | 17.710 | 5.698 | -.074 | -.516 | .73 |
| Academic buoyancy | 18.163 | 6.023 | .147 | -.983 | .84 |
| Psychological well-being | 18.283 | 4.685 | -.581 | -.435 | .85 |
| Positive affect | 22.776 | 5.136 | -.586 | -.379 | .80 |
| Psychological distress | 9.852 | 4.473 | 1.252 | .997 | .81 |
| Negative affect | 13.439 | 4.714 | .614 | .166 | .80 |
| School belongingness | 31.761 | 4.705 | -.419 | -.252 | .71 |

Data Analyses

Data analyses were conducted in several phases. In phase one, the psychometric properties of the ARS and ABS and observed scale characteristics of the variables were examined. Normality assumption was tested using skewness and kurtosis scores (relatively skewness and kurtosis $< |1|$), and the outliers were checked using z -scores (z -scores $< |3.29|$; Tabachnick and Fidell, 2007). Following, Pearson correlation analysis was conducted to investigate the associations between school belongingness and academic, psychological, and social variables. In phase two, given a decision norm is not yet available for the SBS, the 20th percentile scores were utilized as the cut-off scores to categorize school belonging into three groups: the high belonging (HB) group consisting of young people whose belonging scores placed them in the top 100% of the entire sample; the low school belonging (LB) group consisting of youths whose belonging scores placed them in the bottom 20% of the entire sample; the average belonging (AB) group consisting of young people whose belonging scores fell into in the middle for the entire sample. Next, multivariate analyses of variance (MANOVA) were conducted to examine the mean difference between the three groups across all dependent variables. All data were analyzed using SPSS version 25.

Results

Preliminary Analyses

Factor Analysis

Before conducting the primary analyses, the factor structure of the Academic Resilience (AR) and Academic Buoyancy (AB) were examined using the present sample. To this end, the English version of the scales (Martin, 2013; Martin and Marsh, 2008) was translated into Turkish using a translation and back-translation approach (as recommended by the International Test Commission, 2005). Following, the latent structure of the Turkish version of the ARS and ABS was investigated using confirmatory factor analysis with the maximum likelihood method. Findings from confirmatory factor analysis demonstrated that measurement model in which the 8 items were structured as two latent correlated factors (academic resilience and academic buoyancy; as seen in Martin, 2013) yielded the good data-model fit statistics ($\chi^2 = 28.976$, $df = 18$, $p = .049$, RMSEA [90% CI] = .050 [.004-.083], CFI = .963, TLI = .926). Moreover, factor loadings (λ) were strong, ranging from .47 to .85, and construct reliability coefficients (H) for latent factors were also desirable (academic resilience $H = .76$ and academic buoyancy $H = .86$). Results from these analyses also indicated that item-total scale correlations (r) were moderate-to-strong, ranging from .45 to .70, and the scales had adequate internal reliability coefficients (academic resilience $\alpha = .71$ and academic buoyancy $\alpha = .84$). Consequently, these results provide the evidence in favor of using the Turkish version of the ARS and ABS as a measure of adolescents' academic resilience and academic buoyancy.

Table 2. Bivariate correlation results

| Variables | 1. | 2. | 3. | 4 | 5. | 6. | 7. | 8. | 9. | 10. |
|-----------|----|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| SS | – | .299** | .374** | .171** | .363** | .369** | .423** | -.202** | -.174* | .430** |
| FS | | – | .445** | .131 | .074 | .448** | .469** | -.244** | -.239** | .368** |
| PS | | | – | .122 | .268* | .454** | .469** | -.112 | -.224** | .481** |
| AR | | | | – | .621** | .311** | .275** | -.016 | -.139* | .310** |
| AB | | | | | – | .424** | .401** | -.445** | -.500** | .516** |
| PW | | | | | | – | .705** | -.314** | -.298** | .552** |
| PA | | | | | | | – | -.363** | -.404** | .454** |
| PD | | | | | | | | – | .599** | -.353** |
| NA | | | | | | | | | – | -.398** |
| SS | | | | | | | | | | – |

Note. * $p < .05$, ** $p < .001$; SS = School support, FS = Family support, PS = Peer support, AR = Academic resilience, AB = Academic buoyancy, PW = Psychological well-being, PA = Positive affect, PD = Psychological distress, and NA = Negative affect.

Descriptive Statistics

Findings from descriptive statistics of variables demonstrated that skewness and kurtosis scores ranged between -1.235 and $.997$, and all variables were deemed to be relatively normal distributed (skewness and kurtosis $< |1.5|$).

The results also showed that there was a significant small-to-large associations between school belongingness and the study variables, ranging from $-.398$ to $.552$ significantly, and all variables had adequate internal reliability (α) coefficients with the present sample, ranging between $.71$ and $.85$. Thereafter, descriptive statistics of school belongingness groups were examined, as follows: Low SB ($n = 42$, $M = 2.369$, $SD = .238$), Average SB ($n = 157$, $M = 3.146$, $SD = .282$), and High SB ($n = 46$, $M = 3.812$, $SD = .120$). The outcomes indicated that there was no statistically significant gender difference across the school belongingness groups (Kruskal-Wallis $\chi^2(1) = .860$, $p = .354$). After descriptive statistics, a series MANOVAs were conducted to investigate the differential effects of school belongingness groups on youths' psychological and social outcomes.

Table 3. Results of MANOVA of the school belongingness groups on social support, academic resilience, well-being, and distress variables

| Variables | Low | | Average | | High | | <i>F</i> | <i>p</i> | <i>R</i> ² |
|----------------------------|-------------|-----------|-------------|-----------|-------------|-----------|----------|----------|-----------------------|
| | <i>Mean</i> | <i>SD</i> | <i>Mean</i> | <i>SD</i> | <i>Mean</i> | <i>SD</i> | | | |
| <i>Social support</i> | | | | | | | | | |
| SS | 7.047 | 2.879 | 9.074 | 2.407 | 9.907 | 2.589 | 14.969 | <.001 | .116 |
| FS | 9.255 | 2.001 | 10.256 | 2.205 | 11.292 | 1.123 | 10.716 | <.001 | .087 |
| PS | 8.409 | 2.635 | 10.256 | 2.054 | 11.162 | 1.602 | 20.097 | <.001 | .148 |
| <i>Resilience</i> | | | | | | | | | |
| AR | 15.222 | 5.008 | 17.790 | 5.624 | 19.837 | 5.089 | 8.066 | <.001 | .065 |
| AB | 13.562 | 3.501 | 19.677 | 6.084 | 21.500 | 4.869 | 8.879 | <.001 | .255 |
| <i>Well-being outcomes</i> | | | | | | | | | |
| PW | 13.675 | 4.387 | 18.452 | 4.278 | 21.650 | 4.160 | 35.619 | <.001 | .250 |
| EW | 18.441 | 4.880 | 23.069 | 4.632 | 25.900 | 5.357 | 26.091 | <.001 | .189 |
| <i>Distress outcomes</i> | | | | | | | | | |
| PD | 13.236 | 5.734 | 9.669 | 4.364 | 7.904 | 2.694 | 15.576 | <.001 | .125 |
| ED | 17.720 | 3.948 | 12.936 | 4.713 | 11.475 | 3.862 | 24.733 | <.001 | .183 |

Note. SS = School support. FS = Family support. PS = Peer support. AR = Academic resilience, AB = Academic buoyancy, PW = Psychological well-being. PA = Positive affect. PD = Psychological distress. and NA = Negative affect. Effect size (R^2) interpretation guide: $.01-.05$ = small. $.06-.13$ = medium. $.14+$ = large.

Primary Analyses

MANOVA

First, MANOVA was performed to test the main effect of school belongings groups on adolescents' social functioning, including school, family, and peer support. Overall MANOVA results indicated that results of Box's M test were significant (Box's $M = 56.188$; $F = 4.548$ [12, 54003.183], $p < .001$). Therefore, Pillai's Trace results were reported, indicating the significant main effect of school belongingness groups on youths' social functioning (Pillai's Trace = $.267$, F [6, 438] = 11.248 , $p < .001$, $\eta^2 = .14$). Outcomes from the univariate ANOVA also showed that there was a significant difference between school belongingness groups (low, average, and high) for school support ($F(1, 395) = 135.12$, $p < .001$, $R^2 = .25$, Hedge's $g = 1.29$), family support ($F(1, 395) = 35.00$, $p < .001$, $R^2 = .08$, Hedge's $g = .65$), and peer support ($F(1, 395) = 139.66$, $p < .001$, $R^2 = .26$, Hedge's $g = 1.30$), ranging from moderate to large effect size. Post hoc comparison results demonstrated that adolescents with high school belongingness reported higher social support from all sources ranging from small to large effect size than adolescents in the low group. However, there was no significant difference between the average and high school belongingness groups for school and family support (see Table 3).

Additionally, the main effect of school belongings groups on youths' academic resilience and academic buoyancy was examined, demonstrating that Box's M test were non-significant (Box's $M = 56.188$; $F = 4.548$ [12, 54003.183], $p < .001$) and school belongingness groups had a significant effect on the academic resilience and academic buoyancy with large effect size (Wilks' Lambda = $.689$. F [6, 438] = 11.248 , $p < .001$, $\eta^2 = .14$). Findings from ANOVA indicated that there was a significant moderate-to-large difference between school belongingness groups for academic resilience ($F(1, 395) = 135.12$, $p < .001$, $R^2 = .25$, Hedge's $g = 1.29$) and academic buoyancy

($F(1, 395) = 139.66, p < .001, R^2 = .26$, Hedge's $g = 1.30$). Outcomes from comparisons demonstrated the significant difference between school belongingness groups for academic resilience and academic buoyancy, ranging from small to large effect size.

Table 4. Mean Difference between the school belongingness groups on the study variables

| Dependent Variable | Group | | <i>M</i> Diff. (A-B) | <i>SE</i> | <i>p</i> | <i>g</i> [95 % CI] |
|----------------------------|-------|-----|-------------------------|-----------|----------|--------------------|
| | (A) | (B) | | | | |
| <i>Social support</i> | | | | | | |
| School support | LB | AB | -2,027 | ,443 | <.001 | .809[1.16, .44] |
| | LB | HB | -2,859 | ,549 | <.001 | 1.036[1.62, .45] |
| Family support | LB | AB | -1,001 | ,350 | <.01 | .461[.77, .15] |
| | LB | HB | -2,037 | ,440 | <.001 | 1.236[1.59, .89] |
| Peer support | LB | AB | -1,848 | ,361 | <.001 | .837[1.15, .53] |
| | LB | HB | -2,754 | ,451 | <.001 | 1.248[1.71, .79] |
| <i>Resilience</i> | | | | | | |
| Academic resilience | LB | AB | -2,568 | ,922 | <.01 | .466[1.24, .31] |
| | LB | HB | -4,615 | 1,156 | <.001 | .906[1.96, .15] |
| Academic buoyancy | LB | AB | -6,115 | 1,632 | <.001 | 1.121[2.65, .41] |
| | LB | HB | -7,937 | 2,295 | <.001 | 1.922[3.52, .33] |
| <i>Well-being outcomes</i> | | | | | | |
| Psychological well-being | LB | AB | -4,778 | ,769 | <.001 | 1.106[1.74, .47] |
| | LB | HB | -7,975 | ,957 | <.001 | 1.847[2.78, .91] |
| Emotional well-being | LB | AB | -4,628 | ,836 | <.001 | .983[1.66, .31] |
| | LB | HB | -7,458 | 1,057 | <.001 | 1.445[2.54, .34] |
| <i>Distress outcomes</i> | | | | | | |
| Psychological distress | LB | AB | 3,568 | ,800 | <.001 | .759[.08, 1.44] |
| | LB | HB | 5,332 | ,980 | <.001 | 1.199[.23, 2.16] |
| Emotional distress | LB | AB | 4,785 | ,773 | <.001 | 1.048[.39, 1.71] |
| | LB | HB | 6,246 | ,974 | <.001 | 1.584[.74, 2.42] |

Note. *M* diff. = mean difference. Effect size (*g*) interpretation guide: .00–.19 = negligible, .20–.49 = small, .50–.79 = medium, .80+ = large. LB = Low belonging, AB = Average belonging, and HB = High belonging.

Following, the analyses were conducted to examine the main effect of school belongings groups on adolescents' well-being indicators. Results from these analyses showed the large significant main effect of school belongingness groups on youths' well-being (Box's $M = 56.188$; $F = 4.548$ [12, 54003.183], $p = .136$; Wilks' Lambda = .689. F [6, 438] = 11.248, $p < .001$, $\eta^2 = .14$). Results from the univariate ANOVA demonstrated a significant moderate-to-large difference between school belongingness groups for psychological well-being ($F(1, 395) = 135.12, p < .001, R^2 = .25$, Hedge's $g = 1.29$) and emotional well-being ($F(1, 395) = 139.66, p < .001, R^2 = .26$, Hedge's $g = 1.30$). Adolescents with low levels of school belongingness reported low levels of psychological and emotional well-being compared to other school belongings groups with a large effect size.

Finally, MANOVA was performed to test the main effect of school belongingness groups on adolescents' psychological and emotional distress outcomes, demonstrating the significant main effect of school belongingness groups on youths' psychological and emotional distress (Box's $M = 56.188$; $F = 4.548$ [12, 54003.183], $p = .136$; Wilks' Lambda = .689. F [6, 438] = 11.248, $p < .001$, $\eta^2 = .14$). The moderate-to-large significant differences were found between school belongingness groups for psychological distress ($F(1, 395) = 135.12, p < .001, R^2 = .25$, Hedge's $g = 1.29$) and emotional distress ($F(1, 395) = 139.66, p < .001, R^2 = .26$, Hedge's $g = 1.30$). For these variables, youths in the high school belongingness group reported significantly lower mean scores than adolescents in the other groups on psychological and emotional distress with a large effect size (see Table 4 and Figure 1).

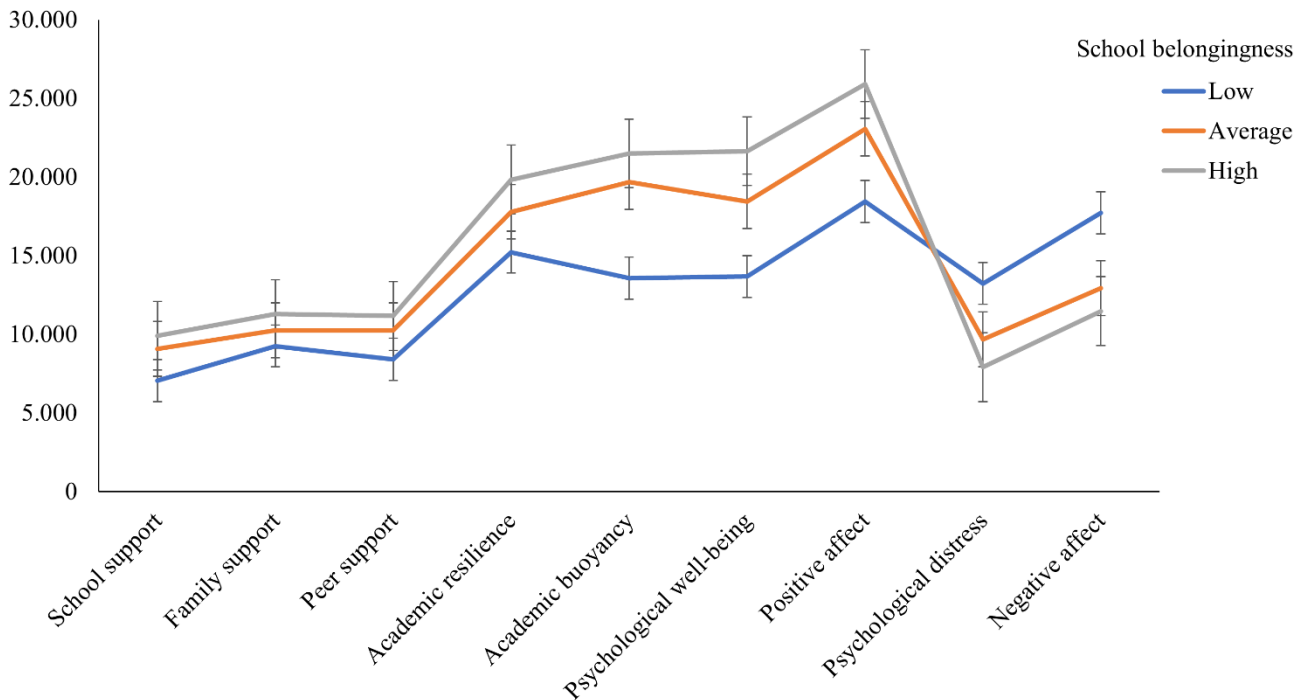


Figure 1. A comparison between adolescents with low, average, and high belongingness on the mental health and well-being domains

Discussion

Thwarted need for belongingness has detrimental effects on both physical and psychological health (Reichl et al., 2013; Silva et al., 2015), as Williams (2007) called it: "The kiss of social death". The age group of adolescents is more likely to experience this kiss of social death in the school setting where they socialize and interact with others. Obviously, this risk becomes higher for academically at-risk students. Supporting the satisfaction of these students' basic psychological needs (e.g., relatedness, autonomy, competence) has been known to be more important in schools because these students usually have a background in disadvantaged homes and lack familial support (Hamre & Pianta, 2001). Thus, there is a crucial need to explore the effects of school belongingness in academically at-risk adolescent populations so that a better understanding can open the pave for developing prevention and intervention strategies. Within this scope, the present research examined whether school belongingness had an impact on adolescents' social functioning (including school, family, and peer support), academic resilience, academic buoyancy, and their well-being indicators.

First, the adaptation of the ARS and ABS measurement tools was conducted by testing their psychometric properties. Results approved that the Turkish version of both scales are reliable and valid to use in measuring adolescents' academic resilience and academic buoyancy. It is believed that it will ease and open the way to studying these two resilience types in Turkish samples. After the scale adaptation procedure, significant group differences in school belongingness regarding adolescents' social functioning were observed. Higher school belongingness was associated with better social functioning overall, and specifically with school, family, and peer support. Indeed, the thwarted need for belongingness, particularly school-based one in this example, is a lack of social connectedness and several scholars studied the thwarted belongingness through lack of social support (Hill et al., 2017; Van Orden et al., 2010). Not surprisingly this hypothesis was supported, but this was the first showing that social support from different environments and school belongingness have fed each other.

Secondly, as hypothesized, school belongingness also had a significant effect on academic buoyancy and academic resilience. Past research already pointed out the negative impacts of social exclusion, and how resilience was a protective marker against these negative impacts of social isolation (Arslan, 2019; Baskin et al., 2010). A satisfied need for belongingness has known to be the main predictor of resilience (DuMont et al., 2007; Gooding et al., 2012; Killgore et al., 2020). Limited but similar finding on how the sense of belongingness with the school is important for youths' resilience was also reported, as well (Kapoor & Tomar, 2016). With the current research, not

only was the role of school belongingness in determining the resilience level of students captured but also specific effects on different types of resilience were questioned to have a better understanding. In the end, it was revealed that higher school belongingness was associated with a higher capacity to deal with academic setbacks. Hence, school belongingness may help academically at-risk adolescents to overcome academic challenges in face of adversities and stressful life events.

Then, significant group differences in school belongingness on well-being indicators were found. Self-determination theory (Deci & Ryan, 2000) and related research have already emphasized the crucial role of school-based belongingness for psychological well-being and overall adjustment (Arslan, 2021a; Arslan & Allen, 2021; Dubow et al., 1991; Ryzin et al., 2009) and better school functioning (Ryzin et al., 2009). The current results approved these early findings higher school belongingness in academically at-risk adolescents was an indicator of increased psychological and emotional well-being. On the other hand, school-based thwarted need for belongingness at this young age group was found to be associated with escalated psychological and emotional distress outcomes, supporting the past research (Baskin et al., 2010; Clark et al., 2012; Lardier et al., 2019). As a result, this updated evidence confirmed the early findings and concluded that lack of school belongingness causes detrimental effects while satisfaction of this need leads to desired outcomes.

As explained, revealed, and discussed above, school belongingness is a school-based contributor to the fulfillment of a basic psychological need, which is crucially important for the personal and academic recoveries and development of students. As the need-to-belong theory (Baumeister & Leary, 1995) and the self-determination theory (Deci & Ryan, 2000) have already described belongingness as a basic motivational human need, and the current findings have captured the importance of these theoretical views in the school context, specifically through the concept of school belongingness. Furthermore, all these findings emphasize the vitality of applying school belongingness-oriented prevention and intervention programs for promoting psychological health and academic improvement in the school environment. As Shochet et al. (2011) suggested, benefiting the social, ecological, and also cognitive-behavioral approaches regarding school belonging might be helpful to enhance the mental health and well-being of the young population. Especially considering the needs and situations of academically at-risk students, more integrative programs and interventions may be implemented. Moreover, teachers and school counselors may detect the socially excluded or poorly included students, and personally help them find ways to feel a better sense of belongingness through their social environments like friends or family. Achieving this will be likely to increase academic resilience and buoyancy, strengthen psychological health and well-being, and also protect against psychological and emotional distress.

Limitations

Despite the valuable findings for both research and practice, the present research is subject to some methodological limitations. First, it was cross-sectional design research and lacked a cause-and-effect relationship. Thus, replicating the hypotheses with experimental design with different data-collection approaches (rather than just using self-report measures) may robust the strength of the current results. Furthermore, adding longitudinal data collection may increase the reliability and validity of findings. Finally, the data collection was carried out by a relatively small sample of Turkish high schoolers. To increase the sample representativeness testing similar hypotheses across various samples like different age groups and cultures is needed. Moreover, given a decision norm is not yet available for the SBS, the 20th percentile scores were utilized as the cut-off scores to categorize school belonging into three groups. Future research could be used different methodological approaches (e.g., latent profile analysis) for a comprehensive understanding relationship between school belonging and various mental health and well-being indicators.

Compliance with Ethical Standards

Ethical Standards

All study procedures involving human participants followed institutional and/or national research committee ethical standards and the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all participants included in the study.

Declaration of Conflicting Interests

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Data Availability

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

Author Contributions

GA was the main research coordinator of the study and contributed to all steps of the research process, ran the analysis, and contributed to writing the manuscript. MC oversaw the study and contributed to writing the introduction and discussion of the manuscript. All authors contributed to the article and approved the submitted version.

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